

REMARKS/ARGUMENTS

Claims 1, 5, and 6 have been amended to incorporate the feature of cancelled Claim 13. Since this feature was presented for consideration and search before the “final” rejection, the amendment should not require a new search or consideration, or raise a new issue. This amendment would reduce one issue for any future appeal and thus should be entered as it is a good faith effort to expedite prosecution of the application to allowance.

Claims 13-15 were presented with Applicants’ previous response before this “final” rejection and thus should be in the record. The present Office Action does not include them, so in a telephone call with the Examiner, the Examiner agreed that Claims 13-15 are included in the application. Applicants’ arguments presented below are also applicable to Claims 13-15.

Rejection Under 35 U.S.C. §112(2)

Claims 1 and 4-11 have been rejected as being indefinite with respect to the b^* and D_{\min} values in defining image tone provided by the claimed photothermographic material. This rejection is respectfully traversed.

Applicants have amended Claims 1, 5, and 6 to define D_{\min} as 0.2 optical density as recited in cancelled Claim 13. This provides a threshold value for D_{\min} .

With respect to b^* , the Examiner argues (page 5) that b^* cannot be determined in the absence of L^* and a^* and cites an article by Berns as support. Thus, the Final Rejection argues that in the absence of providing a value for b^* , a^* , and L^* , the claims are indefinite.

Applicants respectfully submit that b^* can be determined in the absence of a^* and L^* . It is true that tone cannot be determined using b^* alone, but the actual value of b^* is independent of what the other variables may be (see the Equation for b^* on page 69 of the Berns article where b^* is dependent upon Y/Y_n and Z/Z_n that are calculated parameters, not a^* and L^*). As Applicants’ Claim 1 requires a comparison of the b^* value measured at 0.2 optical density to that measured at 1.0 optical density, no absolute value of b^* is necessary to let a person skilled in the art know whether he/she is practicing the claimed invention despite whatever the model used (here we specify the CIELAB model).

Moreover, it is irrelevant as to the a^* and L^* values between 0.2 and 1.0 optical densities since only b^* need be measured for the present invention. Since a skilled worker in the art would understand the metes and bounds of Claim 1 including the use of b^* values at two optical densities in the definition of image tone, the claim is definite and Section 112(2) is satisfied.

Rejection Under 35 U.S.C. §102

Claims 1 and 4-11 were rejected as anticipated by WO 96/15479 (Geisler et al.). This rejection is respectfully traversed.

The Final Rejection (paged 3-4) alleges that Geisler et al. describes the recited features of the claimed photothermographic material and that the composition of Applicants' claimed material is "similar to" that described in Geisler et al. and would therefore both would have the "similar characteristic after processing". The Office Action particularly points to Example 4 of Geisler et al. as describing Applicants' material since Example 4 contains an infrared sensitizing dye and acutance dye and would allegedly have the desired optical density greater than 0.1 at λ_{\max} . Thus, Geisler et al. is particularly believed to inherently describe the presently claimed photothermographic material and method of use.

Applicants respectfully disagree and traverse this anticipation rejection for the following reasons.

Applicants would again submit that Geisler et al. does not describe the presently claimed invention because the photothermographic materials described therein, and particularly those described in Example 4, do not meet the image tone requirements of the presently claimed invention, once the materials are imaged and processed. Rather, the photothermographic material of Example 4 of Geisler et al. is more like the Comparative photothermographic materials described in the present application than like Applicants' claimed photothermographic materials.

As evidence of this fact, the Examiner's attention is again directed to the calculations and statements presented by Applicant Bryan Hunt in the previously submitted **Rule 132 Declaration**. To avoid tedious repetition, his statements are only summarized here, but the details of his statements should be carefully considered in view of the teaching in Geisler et al.

Mr. Hunt, who is clearly skilled in the art of photothermography and knowledgeable about Geisler et al., carefully explains that the Comparative Examples in the present application lacks three or more of the formulation components that are present in the Invention formulations (and materials). See pages 2 and 3 of the Declaration.

Moreover, he also carefully points out that Example 4 of Geisler et al. lacks five of the formulation components that are present in the Invention formulations (and materials). See page 3 of the Declaration. The differences are also summarized in TABLE I on page 5 of the Declaration.

Because the photothermographic material of Example 4 in Geisler et al. is like the Comparative materials, it would be imaged and developed to exhibit the image tone properties like them. As pointed out in Applicants' application, the Comparative photothermographic materials do not exhibit the image tone properties that Applicants require in the claimed invention. This is evidence that the teaching in Geisler et al, and particularly in the cited Example 4, does not inherently describe the presently claimed invention. Mr. Hunt's analysis of Geisler et al. and the Comparative example is just as probative as actual working examples because his experience and understanding of the art are extensive enough to provide him with the ability to know what properties the material of Example 4 would have compared to those materials (both Inventive and Comparative) that he and the other inventors actually reduced to practice.

This evidence provided by Mr. Hunt in his Declaration clearly rebuts the argument that Geisler et al. inherently describes the presently claimed invention.

The Office Action also argues (pages 6-7) that Mr. Hunt's Declaration fails to show that the preferred amounts of Geisler et al. produce a transmission optical density outside the claimed invention. Mr. Hunt is the expert in this instance and technology. His statements in the present application and Declaration, signed under various legal penalties, establish not just mere opinions of someone who may only read about the technology but does not practice in it, but provide evidence of truth regarding the teaching of Geisler et al. and the presently claimed invention. Mr. Hunt is well acquainted with the teaching in Geisler et al. since the invention was developed within the same company. He has practiced in this field for many years. If the Geisler et al. teaching had

produced photothermographic materials having the desired image tone, there would have been no need for the present invention. The desired image tone would be seen in the commercial products on the market. That is not the case. A long felt need was not achieved by merely following the teaching in Geisler et al. despite what unsubstantiated opinions may be presented to the contrary in the Office Action.

There was no need for Mr. Hunt to make and test every possible permutation of the hundreds of combinations of materials described in Geisler et al. to know that they would not have the required image tone. He knows what they would produce by his extensive understanding of the science and teaching of components in that reference and how they relate to the "real world". Mr. Hunt based his comparisons on the teaching of Example 4 in Geisler et al. because the Examiner himself brought up Example 4 in support of his rejection.

For these reasons, Applicants are convinced that the rejection of the claimed invention as being anticipated by Geisler et al. is clearly erroneous and should be withdrawn.

Rejection Under 35 U.S.C. §103

In paragraph 5 of the Office Action, Claims 1 and 4-11 also have been rejected as being unpatentable over Geisler et al. This rejection is respectfully traversed for similar reasons provided above in rebuttal to the rejection of the same claims under Section 102.

In fact, the unpatentability rejection is even less cogent because not only does the teaching of Geisler et al. not inherently describe Applicants' claimed invention, it provides no hint or motivation as to putting the required features together to achieve the required image tone after imaging and development. Geisler et al. (and particularly Example 4) fails to appreciate the problem addressed by Applicants' claimed invention as well as their means for solving the problem, i.e. adjusting image tone independently of tint to provide images that appear clearer and provide better diagnostic quality. This is not expected from the teaching in Geisler et al. particularly since, as Mr. Hunt capably points out in his Declaration, the materials of Geisler et al. are like the comparative photothermographic materials outside of the presently claimed invention.

Mr. Hunt knows that Example 4 of Geisler et al. fails to teach a photothermographic material that would provide the desired image tone. He also knows that Geisler et al. does not teach the need or usefulness of such image tone. The boilerplate teaching in Geisler et al. is very broad. There is no way to know with routine experimentation whether a particular combination of the various components in Geisler et al. would provide Applicants' claimed invention. It would require an extensive research program to find out. Since the Examiner has cited Example 4, that teaching has been the focus of Applicants' investigation and as pointed out previously, Example 4 fails to teach or suggest the claimed invention. It is merely speculation, based on no evidence or technical facts, that Geisler et al. renders the claimed invention *prima facie* obvious to a worker of ordinary skill in the art. Mr. Hunt is certainly one having at least ordinary skill in the art and, with his technically supported statements in his Declaration, he has shown why the unsubstantiated speculation in the Office Action is untrue.

The Examiner also argued (pages 5-7) that the Declaration is ineffective. Applicants refer again to the arguments presented above in rebuttal of this position. The Declaration is said to reflect Applicants' opinion rather than a showing of unexpected results. However, the Office Action states in the sentence bridging pages 6 and 7 that there "is showing of unexpected results presented in the Declaration". Applicants would agree with this statement. As one of at least ordinary skill in the art, Mr. Hunt provides evidence relating to Example 4 that the Examiner has cited as exemplary of the teaching in Geisler et al. It is irrelevant that Applicants are not claiming the use of specific acutance dyes, antifoggants, 4MPA, sulfur sensitizer, and BZT. They are apparently representative of Geisler et al. or the Office Action would not have pointed out Example 4. Applicants have merely responded to the issues raised by the Examiner and it is inappropriate to begin raising new issues at this stage of prosecution while disparaging Applicants' rebuttal of issues already raised.

Therefore, the unpatentability rejection should be withdrawn as lacking merit.

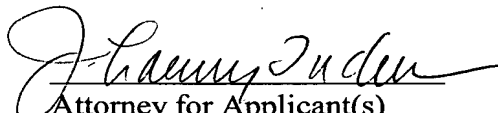
In paragraph 6, Claim 12 has been rejected as unpatentable over Geisler et al. combined with U.S. Patent 5,172,419 (Manian et al.).

Applicants are not relying upon the subject matter of dependent Claim 12 for patentability. This claim is dependent upon method Claim 9 that uses the patentable material of Claim 1. By virtue of the patentability of Claim 1, the dependent claims are likewise patentable and the rejection of Claim 12 should be withdrawn.

Even if they were relying on the subject matter of Claim 12 for patentability, the combined teaching of Manian et al. with Geisler et al. fails to render the combined subject matter of Claims 1, 9, and 12 unpatentable for the same reasons that Claim 1 is patentable over Geisler et al. alone. Manian et al. adds nothing to Geisler et al. to supply the teaching that is missing, i.e. a teaching of photothermographic materials that have the required image tone properties. Manian et al. is silent on that point. In fact, it has nothing to do with photothermographic materials and would not likely be combined with Geisler et al. for any reason. At the time of Geisler et al., there was little interest in computed radiography, digital radiography, and scanning techniques. Moreover, there were no commercial films available with which such techniques would be used. Neither Geisler et al. nor Manian et al. addressed Applicants' image tone feature or how to obtain it. Thus, there is no logical reason within the references themselves that would prompt a skilled artisan to combine their teachings. Only from a perspective of hindsight would Manian et al. be considered for any reason in the prosecution of the present application. Therefore, the rejection of Claim 12 should be withdrawn.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the examiner is earnestly solicited.

Respectfully submitted,


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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.